Haier SERVICE MANUAL

Order No. FL0812S010V1.1

Front Load Washing Machine

MODEL: HW-D1270TVE/ME

HW-D SERIES

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death

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Contents

Chapter 1 General Information 4

1-1. General Guidelines 4
1-2. Caution and Warning symbols 4
1-3. Function indication symbols 4

Chapter 2 Product Feature 5

2-1. Features 5
2-2. Specification 6

Chapter 3 Matters needing attention 8

3-1. Safety 8
3-2. During Use 9

Chapter 4 Operational Guidance 10

Chapter 5 Program Introduction 12

Chapter 6 Appearance brief introduction 13

6-1. Name of parts 13
6-2. Net dimension 14

Chapter 7 Disassembly and Installation 15

7-1. Remove packing materials 15
7-2. Dismantle packing bolts 15
7-3. Adjusting the washing machine 15

7-4. Joining the Inlet Hose to the Washing Machine 16
7-5. Connecting to the Power Supply 16

Chapter 8 Wiring circuit 17

8-1. Wiring circuit 17
8-2. Self check 18

Chapter 9 Error Display and troubleshooting 19

9-1. Error Display 19
9-2. Examination & Troubleshooting 25
9-2-1. Display nothing 25
9-2-2. No water inletting 25
9-2-3. No draining 26
9-2-4. Abnormal noise and vibration 26
9-2-5. Water leaking 27

Chapter 1 General Information

1-1. General Guidelines

When servicing,observe the original lead dress.If a short circuit is found, replace all parts which are overheated or damaged by the short circuit.After servicing ,see to it that all the protective devices such as insulation barriers ,insulation papers shields are properly installed .Confirm that the screws,parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the service places serviced or not. And be sure safety of that.

1-2. Caution and Warning symbols

(You will see them in “Matters needing attention”)

Any instructions in this service manual with this “Warning “sign must be followed strictly.

To prevent damage to the washing machine, any instructions in this manual with this “Stop “sign must be followed strictly.

1-3. Function indication symbols

(You will see them in the specification table)

Signify the washing machine has this function.

—

Signify the washing machine doesn’t have this function.

Chapter 2 Product Feature

2-1. Features

Environmental friendly to protect your skin.

DC driver to save more energy and water

High speed is available for easily dying and washed items are always ready for further use.

Sterilization of electrolyzed water makes washing complete and clean

Super large LCD displayer provides a clear indication of functional operation

Memory function of power failure

Thorough rinse function

Dynamic washing function

Electromagnetic door lock, which will open when the machine stops

2-2. Specification

	washing machines		HW-D1270TVE/ME
	Last update		
1.	**Product identification**		
	Description of appliance		Washing machine
	Type of appliance(FS = standing, BI = built-in		FS
	Supplier own brand		Haier
	Supplier bar code	EAN	Haier
	Commercial Brand / Model		Haier
	Commercial bar code	EAN	Haier
2.	**Key-Features**		
	Energy efficiency class		A
	Washing performance class		A
	Spin efficiency class		B
	Programs	n°	11
	Capacity	Kg	7
	Spin speed ***(max. / optional)***	rpm	1200
	Noise level（sound pressure level）	dB(A)	72
	Energy consumption per wash circle	kWh	1.19
	Water consumption per wash cycle	l	56
	Residual dampness *(spin result)*	%	50%
	Spin speed selector switch *(steps)*	rpm	●
	Spin speed variator *(stepless)*	rpm	□ ●
	Adjustable thermostat (*water temp. adjust* from - to)	°C	90 - ❄
	Drum capacity dry laundry / water	kg / l	7/56
	Auto water level adjust *(depending on volume of filled in laundry)*	*AWL*	●
	Washing time (max.)	min	178
	Washing temperatures *(program-controlled)*	°C	Cold/30/40/50/60/90
	Certification's (**CE** / ISO 9001 / ISO 9002)		CE / ISO 9001
	Approvals (VDE/GS / TÜV/GS / IMQ)		TÜV/GS (Rhl.)
	* per average 200 wash cycles *(EN50242)* ❄= *COLD*		●
3.	**Basics data**		
	Unit dimensions (H x W x D)	cm	84X59.5X61
	Net weight	kg	73
	Voltage/frequency	V/Hz	220-240V~50Hz
	Input power / main fuse (intensity)	W / A	2000/10
	Work top / removable		●/●
	Control **M** = electromechanical, **E** = electronic, **F** = fuzzy		E
	Inner cylinder **S** = stainless steel / **Z** = zinc coated		S
	Outer cylinder **P** = Plastic / **S** = stainless steel		P
	Door:		
	aesthetic (**R** = round, **Y** = big eye, **Q** = square)		Y
	Diameter	cm	30
	Outer door frame **S**= stainless steel / **M** = metal / **P** = plastic		**P**
	Inner door **G**= glass / **P**= plastic		G
	Detergent compartments	n°	3
	Removable compartment for liquid detergent		-
	Delay timer *(from - to)*	h	0.5-24
	Self cleaning suds pump		●
	Water inlet hose cold water / hot water		**●/-**
	Water drain hose / -support		●/●

	Adjustable feet	n°	4
4.	**Safety systems**		
	Auto door lock	*ADL*	●
	Motor overheating protection	*MOP*	●
	No heating without water	*NHW*	●
	Auto water cool-down *(before drain 90°C boiled water)*	*AWC*	●
	Water protection	*WRP*	●
	Acqua Stop kit		●
	Child protection		●
5.	**Programs**		
	1) Cotton cycles Strong/Normal/Delicate	n°	2
	1) Synthetics Normal / Delicate	n°	1
	2) Wool	n°	1
	3) Hand wash	n°	1
	4) Sport program	n°	1
	5) Spin		1
	6) Drain	n°	1
	7) Underwear	n°	-
	8) Bulky Clothes	n°	-
	Optional function keys (additional program settings)		
	ON/OFF button		●
	Half load		●
	Super Wash		-
	Spin exclusion		●
	Spin reduction	rpm	●
	ECO Time		●
	No Soak		-
	Rinse stop		●
	Delicate		-
	Cold wash	❄	●
	Accelerated Washing		●
	Extra Rinse		●
	No use detergent		-
	Healthy		-
	Time Delay		●
	Start/Pause		●
6.	**Packing dimensions & loadability**		
	Packing dimensions (H x W x D)	cm	88.5*63.5*65
	Gross weight	kg	75
	40' Container load	pcs	
	40' HC load capacity	pcs	162

●Stand for having the function
- Stand for not having the function
ECO stand for ecnomical wash

Chapter 3 Matters needing attention

3-1. Safety

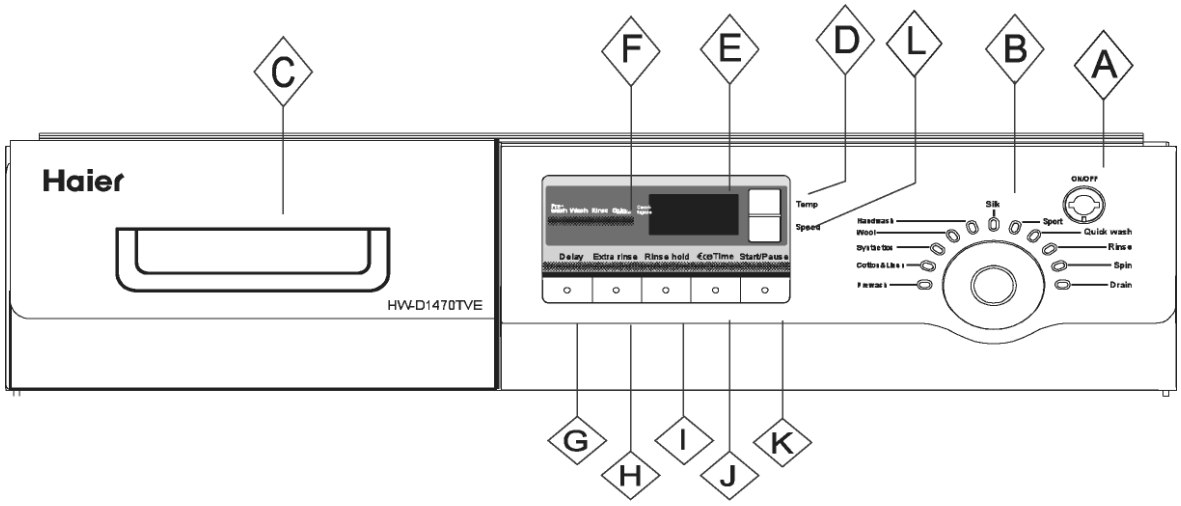
1.A separate earthed socket is required for the power supply. The washing machine must be positioned so that the plug is accessible.	2. Hold the plug and not the electric cable when unplugging the washing machine.
3.Fuses in the power circuit should be rated for 15A. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.	4. Do not touch or use the washing machine bare footed or when the hands or feet are wet.
5.Do not use flammable detergent or dry cleaning agent; do not use flammable spray in close vicinity to the washing machine; do not remove or insert the plug in the presence of flammable gas.	6. The door of the washing machine will become hot during the heating process. Avoid contact with the door during the heating process. For safety, keep children away from the washing machine.
7. Keep children away from the packing materials after unpacked.	

8.The washing machine should not be installed outdoors or in a damp place. In the event of water leakage or splashes allow the machine to dry naturally.	9. The carpet must not obstruct the ventilation openings in the base of the washing machine.
10.Keep away from heat sources and direct sunlight to prevent plastic and rubber components from aging.	11.During installation, ensure that the electric cable is not trapped by the washing machine and avoid damage to the electric cable.

3-2. During Use

1. Before use, check the joints of the filling hose, the tap and the drainage hose for possible problems from water pressure fluctuations. If joints are loose or there is leakage, turn off the tap and repair. Do not use the washing machine until the hoses are properly fixed.	2. Keep the door slightly open when the washing machine is not in use to prevent formation of odors; do not cover the washing machine with plastic cover so that inside dampness cannot be kept in.

Chapter 4 Operational Guidance

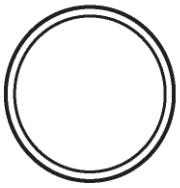


A: Power Switch

Pressing this button will switch the washing machine on and off.

B: Wash programming dial

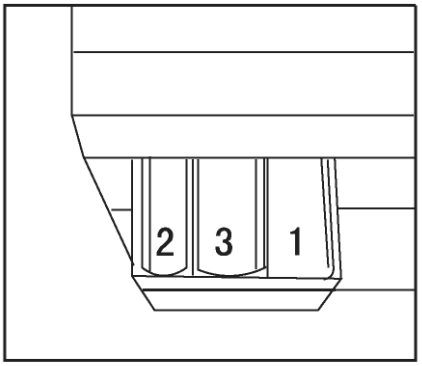
By turning the dial clockwise/counterclockwise, the required program can be selected.
(Refer to Guide to Operational Program Selection).



C: Detergent distribution drawer

Open the drawer, three compartments can be seen:

Compartment 1: Pre-wash detergent
Compartment 2: Normal - Quick wash detergent
Compartment 3: Softener, conditioning agent, perfume, etc.



D: Washing temperature dial

Press this button to select the required temperature (when a temperature is selected, the corresponding indicator will go on).

E : Display

Such information as remaining wash time, temperature and speed setting and error messages will be shown.

Note: After power is switched on, the display will go on and the remaining wash time decreases. As the water pressure and temperature may differ, the remaining time may be adjusted accordingly. When the laundry is not balanced during spinning, the time may be automatically prolonged. These are normal phenomena.

F : Washing indicator

It indicates the washing process of the selected program.When the light is on, it shows that the washing process being indicated is running.

G:Delay Button
Touch this button lightly.the washing machine will start operation after a period of time and the corresponding indicator will go on.The range is 0.5-24 hours;each touch of this button increases a half hour.After the button is set.press the Start/Pause button to start countdown of the set time(the time is displayed on the screen until the program ends).

Note:The delay time muse be longer than the program time;otherwise.the washing machine will start the wash program directly.

H:Extra rinse button
Touch this button lightly.the indicator will go on.An additional rinse operation will activated.
Note:Select this function when programe 1-6 or 9 is selected.

I:Rinse hold button
Touch this button lightly.the overhead indicator will go on.When the washing machine is at the last rinsing operation.it will not drain but to start a soaking cycle.If you want to spin the laundry.press this button again.the indicator will go off and operation will resume.
Note:Select this function when "prewash"."cotton&linen"."synthetics"."single rinse"is selected.

J: € Time button
Before a washing program.press this button to set the required washing load(1:3-FULL).the washing machine will automatically adjust the water consumption.heating time and washing time.Users can select the washing load as required for economical operation.
Note:1."1:3-FULL"refers to the four levels of washing load.If the laundry is more than half of the drum content.it is recommended to select 2:3-FULL;otherwise.select 1:3-1:2.
2.For"synthetics"."sport".you can only select 1:3-2:3.
3.Please adjust the detergent quantitiy as per the washing load selected.

K:Start/Pause button
When the washing machine is plugged and program is selected.lightly touch this button to start operation.During a wash cycle.touch it lightly.the display will begin blinking and operation will stop.Touch it again to resume operation.

L:Spinning speed setting button
Touch this button lightly to select the desired speed.There are speed indicator over this button.

Chapter 5 Program Introduction

Mode Selection (Program Knob Position)			Recommended Laundry	Temperature	Default Setting	Detergent		
						1	2	3
	1	Prewash	Heavy-soil laundry	* 30℃ 40℃ 50℃ 60℃ 90℃	1000rpm 40℃	★	★	○
	2	Cotton-&linen	Cotton fabric	* 30℃ 40℃ 50℃ 60℃ 90℃	1000rpm 40℃	×	★	○
	3	Synthetics	Synthetic fabrics	* 30℃ 40℃ 50℃ 60℃	1000rpm 40℃	×	★	○
	4	Wool	Wool fabrics	* 30℃ 40℃	⊗ *	×	★	○
	5	Handwash	Woolens with a felt-free finish and special-care items identified as machine washable	* 30℃ 40℃	⊗ *	×	★	○
	6	Silk	Silk fabrics	* 30℃ 40℃	⊗ *	×	★	○
	7	Sport	Sports wear	* 30℃ 40℃	1000rpm 40℃	×	★	○
	8	Quick	Slight-soil cotton.linen and synthetic fabrics	* 30℃ 40℃	1000rpm 40℃	×	★	○
	9	Rinse		*	1000rpm *	×	×	○
	10	Spin		*	1000rpm *	×	×	×
	11	Drain		*	⊗ *	×	×	×

Chapter 6 Appearance brief introduction

6-1. Name of parts

6-2. Net dimension

11

Chapter 7 Disassembly and Installation

7-1. Remove packing materials

Remove all the packing materials (including the foam base) to prevent vibration during use, as shown in Fig. 1.
Upon opening of the package, water drops may be seen on the plastic bag and the porthole. This is normal phenomenon resulting from water test in the factory

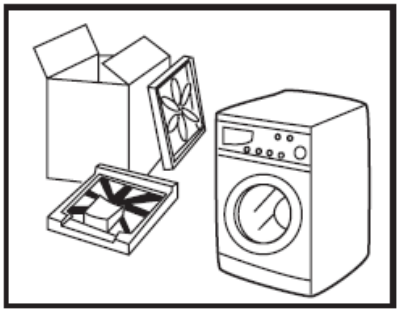


Fig.1

7-2. Dismantle packing bolts

Dismantle the packing bolts as shown in Fig. 2.
The packing bolts are designed for clamping anti-vibration components inside of the washing machine during the transportation process.
Before use:
1. Remove the back plate;
2. Remove the three packing bolts on the back plate and take out the rubber hose;
3. Replace the back plate;
4. Fill the holes left by the packing bolts with plastic plugs.
Attention: The packing bolts and rubber hose should be kept in a safe place for later use.

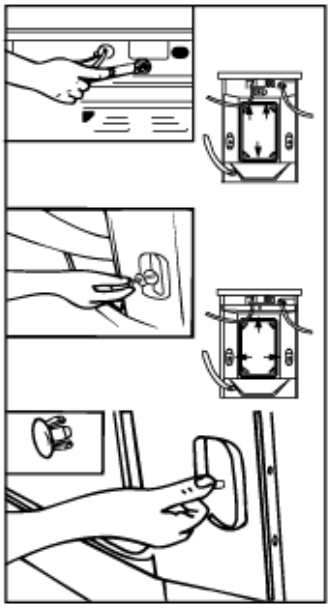


Fig.2

7-3. Adjusting the washing machine

There are adjustable feet under the bottom of the washing machine. Before use, the washing machine should be adjusted, as shown in Fig. 3, so that it is level.

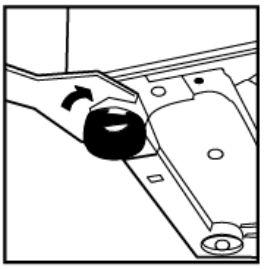
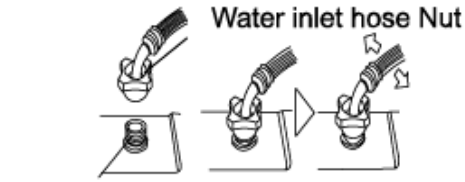


Fig.3

7-4. Joining the Inlet Hose to the Washing Machine

1. Connect the nut on the inlet hose to the connector on the water valve.
2. Tighten the nut to secure the hose.



Connect of water inlet valve

7-5. Connecting to the Power Supply

Before connecting to the power supply, check:

The socket is adequate for the maximum power of the washing machine (For safety, fuses in the power circuit should be rated for no less than 15A).

The voltage should meet the requirement.

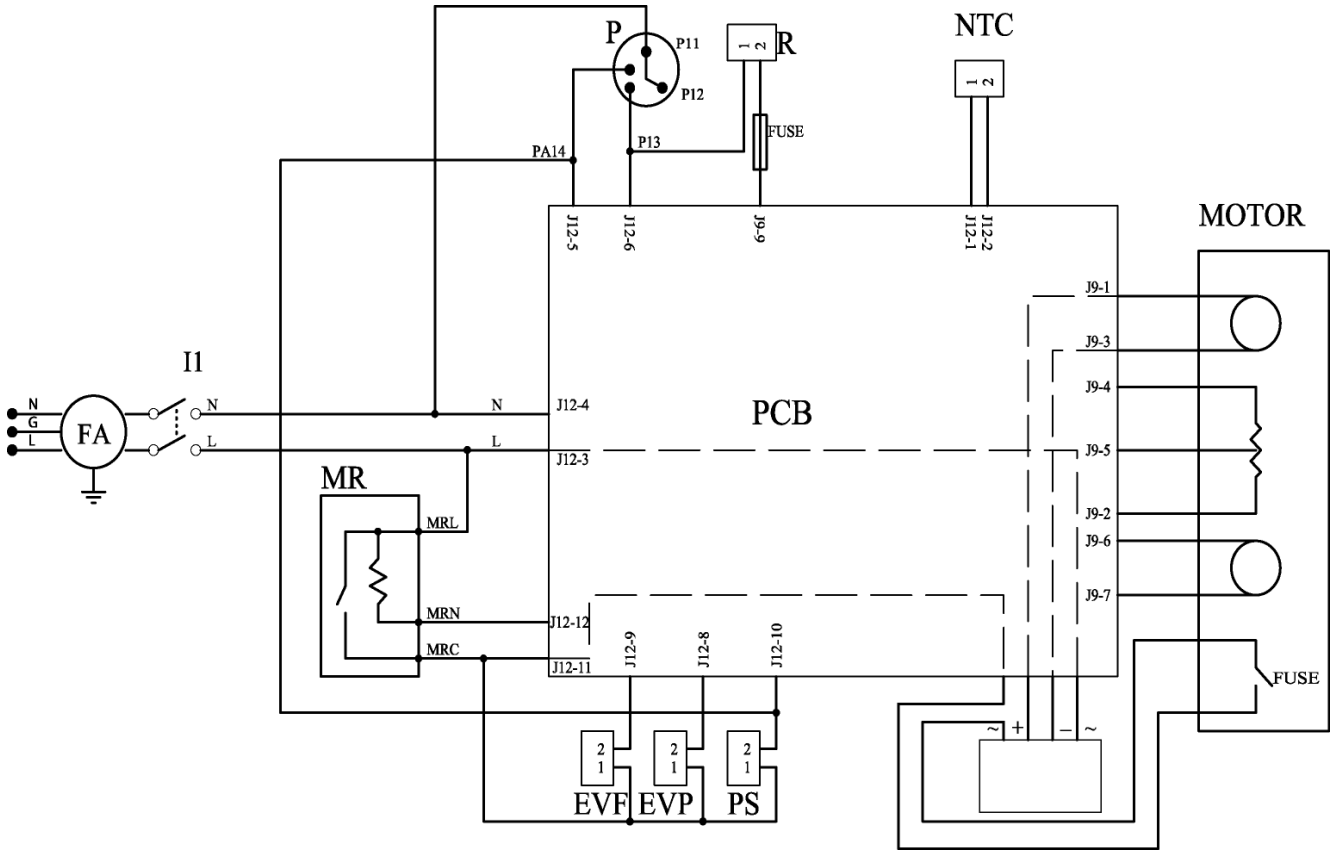
The power supply socket and the plug of the washing machine should be compatible. if they are not compatible Refer to a washing machine technician or a Haier designated service point for power cable replacement. The washing machine should be connected to the earth before use.

Supplementary earth cable should not be necessary if the socket is connected to the earth.

Supplementary earth cable shoulde be installed on the upper back of the washing machine and connected to an earth if the power supply socket has no earth connection.

Chapter 8 Wiring circuit

8-1. Wiring circuit



8-2. Self check

Note:

1.If you want to stop the program setting,at first,you should pressthe button of start/pause only one time.Then turn off power, .If you want to start the program setting again,you should turn on the power again,so it is ok.

2.Switch on the power, press the “extra rinse” button and the “rinse hold” button at same time, the washing machine will display the model . then press “start/pause”button , the washing machine will be in self check mode.

1) When the door switch is closed for ten seconds, 88:88 will be displayed.
2) When the main wash valve allows water to let in for 3 seconds, 77:77 will be displayed.
3) When the pre-wash valve allows water to let in for 3 seconds, 77:77 will be displayed.
4) When the hot water valve allows water to let in for 3 seconds, 77:77 will be displayed.
5) When the main wash valve, the pre-wash valve and and also the hot water valve allow water to let in for 3 seconds at the same time, 77:77 will be displayed.
6) When the motor runs for ten seconds with the spin speed 93rpm, 66:66 will be displayed.
7) When the motor runs for 50 seconds with the spin speed 800rpm, 66:66 will be displayed.
8) When the main wash and pre-wash allow the water to go in meanwhile until the maxim water level, 55:55 will be displayed.
9) When the water fills the tub fully, it will stop for ten seconds and at this time 55:55 will be displayed.
10) When the motor runs clockwise for 15 seconds with 50 rpm, the washing machine will stop for 5 seconds and at this time 44:44 will be displayed.
11) When the washing machine heats water for 10 seconds, 33:33 will be displayed.
12) When the washing machine drains for 30 seconds, 22:22 will be displayed.
13) When a program cycle is finished, END will be displayed.

Chapter 9 Error Display and troubleshooting

9-1. Error Display

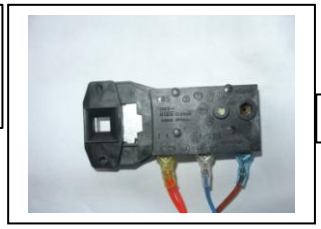
Error message:Door is not properly shut 20s after program is started.
Troubleshooting:

Pushing the door to Check Whether Door is properly shut or not

N → Shut the door properly

Y

Cut off the power and then turn on again. Check the voltage between brown wire and red wire of door lock, is it between AC 220-240V?



Y → Door lock is broken and need replacing, then make sure wire is connected properly.

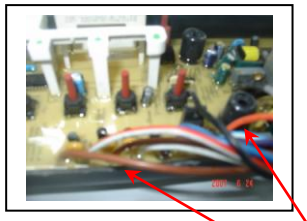
N

Check if the wire connecting door lock and computer board is loose

Y → Connect the wire properly

N

Check the voltage between grey wire and white wire of computer board, is it between AC 220-240V?



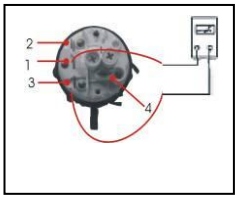
N → Replace PCB

Error message:Drainage error, water not emptied within 4 min.
Troubleshooting:

Check if water is emptied

Y → Cut off power and water level pressure switch wire connection, measure the resistance of 1 and 3 pin, is it infinite? If not, it is water level pressure switch failure and replace it. If it is, then repair and check computer board and wire as followed.

N



Check if drain pump acts by touching pump position

N

Y

Check if drain pump or drain pipe is jammed, and open the filter and clean

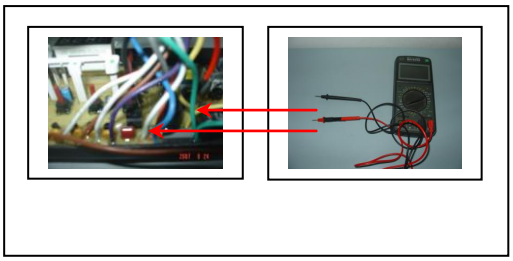
Cut off the power and choose spin program to start, then check the import voltage of drain pump, is it between AC 220-240 V?

Y

Replace drain pump

N

Cut off power and pull out water level pressure switch wire connection. Set spin program to start. Check the export voltage to drain pump, is it between AC 220-240V?between blue wire and green wire



Y

The wire between computer board and drain pump is not connected properly. Replace the wire.

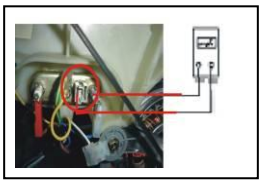
N

Replace PCB

Error message:Temperature sensor is not properly connected or damaged (display at the end of a program).

Troubleshooting:

Cut off power and measure the resistance of temperature sensor by multimeter, is it between 5-14kΩ?



N

NTC exist open circuit .Replace it

Y

Check if NTC is connected properly

N

Connect NTC well

Y

Check the blue wire and black wire of NTC, are they connected well?

N

Connect all wires well

Y

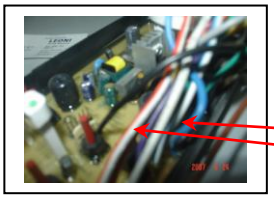
Disconnect the white wire and black wire from computer board, and measure if the resistance between blue wire and black wire of PCB is it infinite?

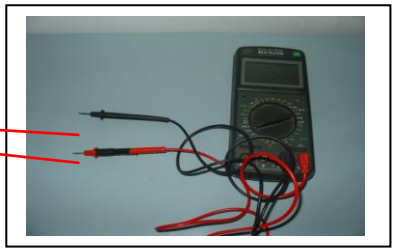
Y

Replace wire

N

Replace PCB



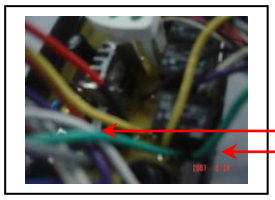


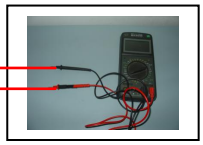
Error message :The heater may be broken
Troubleshooting:

Cut off power ,check the resistance Of two pins of heater element by multimenter is it between 30-35Ω ?

Heater element must be broken please replace it

Turn on power ,and set wash mode,then start ,check the export voltage of heater element between 12-6 and J9-9 ,is it between AC 220-240V?





PCB must be broken, please replace it

Error message:The required water level is not reached within 8 min.
Troubleshooting:

Check if water is leaking from washer bottom. inlet pipe. drain pipe or other pipe connection

Y

Readjust or replace the broken parts

N

Check if tap is closed or water pressure is too low (usual between0.03 -1 MPa)

Y

Open the tap or wait for normal water pressure to use

N

Check if inlet valve is jammed

Y

Clean inlet valve

N

Draw out the dispenser and check if water is entering

Y

Observe if the height of drain pipe not reach 80 cm. If water level pressures switch and the hose is leaking gas

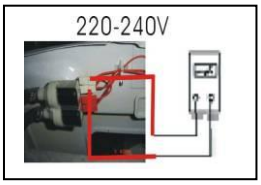
N

Turn on power, and set pre-wash mode, then start. Check the import voltage of electromagnetic valve by multimeter , is it between AC 220-240V between the white wire and red wire that they are not connected?Voltage is220-240V between white wire and white wire,between red wire and red wire

Y

Electromagnetic valve must be broken, please replace it.

N

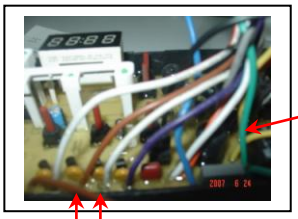


Check if export voltage from computer board to electromagnetic valve, is it between AC 220-240V that voltage between grown wire and white wire of PCB ?

Y

The wire connected PCB and inlet valve is not properly. Please reconnect it or replace it.

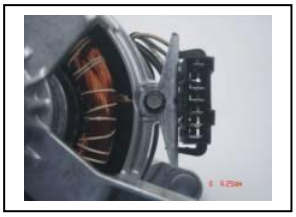
N



Replace PCB

Error message:Motor speed error .it may be not properly connected or damaged.
Troubleshooting :

Cut off power, and check if motor wire is connected well



N

Connect them well and test.

Y

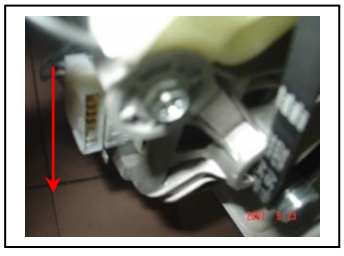
Check if the wire of motor is connected well with computer board.

N

Connect them properly and test.

Y

Pull out the motor insert string, and check the resistance of motor speed measurer and the winding of the motor, is it as followed?From up to down,The order is M1.M2.M3.M4.M5.M6.M7.M8.M9.M10 : the resistance between M5and M10 is 1.67~1.85Ω. the resistance between M8and M9 is 1.69~1.87Ω.



N

Replace the motor.

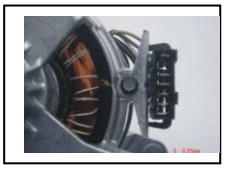
Y

Check the import voltage between M1 wind and M2 wind, is it between AC 220-240V?

N → Replace PCB

Error message. Motor overheat protection or is damaged.
Troubleshooting:

Cut off power and check if motor wires are connected well



N → Reconnect well

Y

Measure if resistance of motor winding by multimeter,is it as followed?
the resistance between M5and M10 is 1.67~1.85Ω. the resistance between M8and M9 is 1.69~1.87Ω.

N → Put the motor in nomal temperature about ten minutes,and then test again.If the resistance is natural, it is caused by overheated protection.Then check and deal with overload,abnormal voltage.If not,please replace motor

Y

Pull out the wire connection of motor and computer board.Then check if circuit is open by multimeter

Y → Repair wires

N

Turn on power and set spin mode,then start.Check the import voltage between red wire and red wires, is it between 220-240V?

Y → Replace PCB

Error message. Water level exceeds protection value.
Troubleshooting:

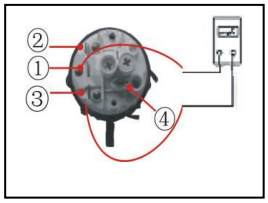
Check if water switch hose and air collector are jammed

Y → Clean water switch hose and air collector

N

Pull out water switch inserts and turn on power, then set wash mode. While water is entering at the position of 1/4 glass window, check the resistance between ① and ②, is it 0? Check the resistance between ①and ③, is it infinite?

N



Y

Replace water pressure switch

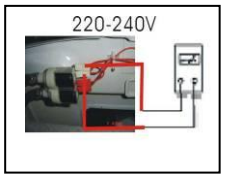
Without power ,connect inlet pipe to inlet vavle,then open the tap and observe if water is entering in dispenser

N

Y

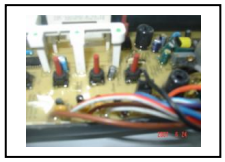
Replace inlet valve

Without starting but electrifying, measure the import voltage of inlet valve, is it between AC 220-240V?



Y

Replace PCB

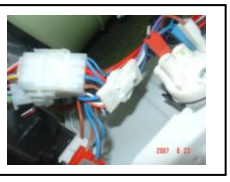
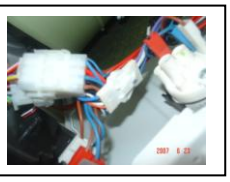
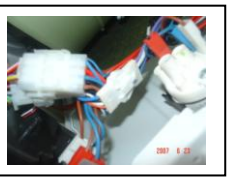


9-2. Examination & Troubleshooting

9-2-1. Display nothing

Troubleshooting:

Measure the power supply ,is it exists 220V-240V AC voltage?
N → Repair power supply
Y
Is power switch on?

N → Press the power switch
Y
Press power switch and check the voltage between two pins of power switch. Is there 220-240V AC voltage between blue wire and brown wire?
N

N → Make sure power supply cable assembly is connected well and then replace power switch.
Y
Cut off power and check if plugs are connected well by pulling the plug of computer board.

Y → Insert the plug well and test
Y
Check if power plug exists 220V-240V AC voltage at the import pin

N → Replace PCB

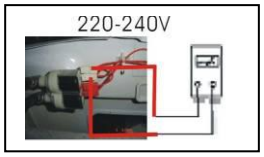
9-2-2. No water inletting

Troubleshooting:

Is the tap shut off or the water pressure too low?

Y → Open tap or wait for normal water pressure
N
Check if water is leaking from washer connection, especially between inlet pipe and tap. to make sure of no bends.

Y → Reconnect inlet pipe.
N
Check if filter of electromagnetic valve is jammed

Y → Clean filter
N
Choose pre-wash program and start, Check if there is 220-240V at import pin of electromagnetic valve


Y → Replace electromagnetic valve
N

Is there open circuit between electromagnetic valve and computer board?

Y → Reconnect the wire

N

Choose pre-wash program and start，then check if there is 220-240V at export pin of electromagnetic valve

N → Replace PCB

9-2-3. No draining

Troubleshooting:

Is the height of drain pipe too high?

Y → Adjust the height of drain pipe to 80-100 cm

N

Turn filter anticlockwise，open and check if filter is jammed

Y → Clean and tighten filter clockwise.

N

Check if hose connecting cylinder to pump is bent or jammed

Y → Arrange hose and clean

N

Turn on power and choose spin program to start. Measure if import voltage of drain pump is 220-240V

Y → Replace drain pump

N

Cut off and check if the connection between drain pump and computer board is open

Y → Replace the wire.

N

Turn on and choose spin program to start. Measure if export voltage of PCB to drain pump is 220-240V

N → Replace PCB

9-2-4. Abnormal noise and vibration

Troubleshooting:

Is the pack screws dismantled?

N → Dismantle the screws

Y

Is there foreign material in the washer?

Y → Clean

N

Is washer in balance?

N → Adjust adjustable feet

Y

Is belt loose or worn?

N

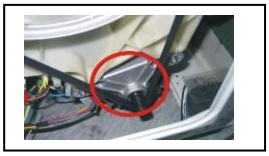
Are the screws of counterweight and motor loose?

N

Remove belt and turn belt pulley by hand, and then check if there is different noise

N

Turn on power and set spin program, then start，check if there is different noise from motor



Y

Replace it

Y

Fasten them

Y

Dismantle triangle and check the bearing .If it is broken, replace it.

Y

Replace motor

9-2-5. Water leaking Troubleshooting:

Check if water is leaking from the inlet pipe or the tap

N

Is drain pipe broken?

N

Check if there is foreign material nipped between cushion of sight window and sight window

N

Check if all tubes and tie-in is leaking water, including the connecting of tube and valve, dispenser, tube and dispenser ,outer cylinder-cushion of sight window-hose and outer cylinder, drain pump and gas valve

N

Is cushion of sight window broken?

N

Is water leaking from outer cylinder?

Y

Readjust it.

Y

Replace drain pipe

Y

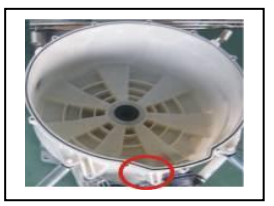
Remove clothes

Y

Reassemble or repair

Y

Replace cushion of sight window



Y

Replace outer cylinder

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